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ABSTRACT

Valence-Instrumentality-Expectancy (VIE) theory was used as a framework for exploring the dynamics of occupational preferences and satisfactions of 268 professors and 45 department chairmen at a major university and the processes underlying the intention of professors to make a mid-career change into the administrative role. The VIE theory is a rational model which attempts to explain how cognitive (instrumentality) and affective (valence) components combine to yield an index of an individual's overall feeling about an occupation. The criterion to test the total VIE model of occupational choice was to ask if professors would accept the job of chairman, assuming it was offered. Two questionnaires were used, one for professors and one for department chairmen which contained statements in seven general categories: Power, achievement, security, autonomy, social factors, family considerations, and esteem. Questionnaire items also asked both groups for their expectancy of success on both jobs and their satisfaction with both jobs. It was found that the preferred job was differentiated in each sample as predicted, but the different components of the VIE model did not uniquely predict attraction, satisfaction, and choice as specified by the theory. Chairmen rated the two jobs as equally attractive, but the professors as a whole were more negative to the chairman's job, and only a minority indicated they were willing to accept a chairmanship. (Author/TA)

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THE INFLUENCE OF JOB CHARACTERISTICS AND THE FAMILY ON THE PROPENSITY TO CHANGE CAREERS: AN EXPECTANCY THEORY APPROACH

ROBERT A. SNYDER
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TOVE HELLAND HAMMER

Research Report No. 12

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number):

Valence-Instrumentality-Expectancy (VIE) theory was used as a framework for exploring the dynamics of occupational preferences and satisfactions of professors and department chairmen and the processes underlying the intention of professors to make a mid-career change into the administrative role. The preferred job was differentiated in each sample as predicted, but the different components of the VIE models did not uniquely predict attraction, satisfaction, and choice

as specified by the theory. The chairmen rated the two jobs as equally attractive, but the professors as a whole were more negative to the chairman's job, and only a minority indicated they were willing to accept a chairmanship. Subscale analyses showed that greater power was associated with the job of chairman and greater autonomy with the job of professor, and that these job characteristics better suited the desires of the incumbents.

The Influence of Job Characteristics and the Family on the Propensity to Change Careers: An Expectancy Theory Approach[1]

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The purpose of this study was to explore why some academicians aspire to and accept administrative positions (e.g., a department chairmanship) while others do not. Although movement up a managerial hierarchy is a generally accepted symbol of progress for the typical "management trainee" in industry, movement from a professional position to a managerial or administrative role may take on a different connotation and involve a more complex set of decision-making factors. This should be especially true in the university setting, where individuals have many years of highly specialized training

[1]The authors thank Ben Schneider, Pete Dachler, Gene Hoffman, Glen Goldmark, and Bob Hannan for their assistance. The Computer Science Center of the University of Maryland partially supported the extensive data analyses required.

in the professional field. Although a university professor's regularized status passages (Hall, 1976) may include movement from graduate student/teaching assistant or instructor to assistant, associate, and full professor, moving into a university administrative position may be interpreted as a mid-career change.

One appropriate framework for examining the processes underlying individual decisions concerning career preferences and choices is Valence-Instrumentality-Expectancy (VIE) theory. With regard to occupational preference, VIE theory suggests that the attractiveness of an occupation to a person is a monotonically increasing function of the algebraic sum of the products of the valences of relevant outcomes and his conceptions of the instrumentality of the occupation for the attainment of these outcomes (Vroom, 1964). Valence (V) refers to the individual's degree of positive or negative value attached to the outcome, and instrumentality (I) refers to the extent to which the occupation is seen as leading to the outcome. Thus VIE theory is a rational model which attempts to explain how cognitive (instrumentality) and affective (valence) components combine to yield an index of an individual's overall feeling about an occupation or other object, or a course of action (Wanous, 1972).

Combinations of the valence and instrumentality components of VIE theory have been demonstrated to differentiate the preferences among students for occupations (Englander, 1960; Holmstrom, & Beach, 1973; Mitchell & Knudsen, 1973; Sheard, 1970; Vroom, 1964,

1966; Wanous, 1972), for academic areas (Muchinsky & Fitch, 1975), and for organizations (Lawler, Kuleck, Rhode, & Sorenson, 1975). In a similar vein, valence-instrumentality indexes have also been related to choice behaviors or behavioral intentions rather than just preferences or relative attractiveness among occupations or occupation-related settings. Sums of products of the two variables have been shown to predict intention to retain a Navy career (Mitchell & Albright, 1972), intention to stay with a Navy career compared to a civilian alternative (Schneider, 1976), and organizational choice among accounting graduates (Lawler et al., 1975), nurses (Sheridan, Richards, & Slocum, 1975), and master's graduates in Industrial Administration (Vroom, 1966).

According to the tenets of VIE theory, however, valence and instrumentality should predict occupational preference, but the choice among occupations (or organizations) should be better predicted if these products are multiplied by an individual's expectancy of attaining the occupation (Lawler, 1973; Vroom, 1964). This expectancy term is represented by the E in VIE theory and is included when the distinction is made between the attractiveness of an object or action (predicted by V and I) and the force on a person to act (predicted by V, I, and E). Accordingly, the force on a person to attempt to enter an occupation is a monotonically increasing function of the product of the attractiveness of the occupation and of his expectancy that his attempt will be successful (Vroom, 1964). The expectancy term is a reality factor that restrains one's motivation

to enter an occupation, no matter how attractive, when there is little probability of being accepted (Lawler, 1973). This reality factor helps explain why the preferred occupation is frequently not the chosen occupation.

Only a few studies have used the total VIE formula to explain the force to enter an occupation, and these have had limited success. Rosen (cited in Vroom, 1964) performed a laboratory experiment with high school boys in which the valence of five occupations was rated by the subjects, but instrumentality and expectancy were experimentally manipulated. Their force to enter an occupation, as measured by their willingness to return for further testing about their qualifications for the job, was shown to be a function of both the attractiveness of the occupations and their expectancy of attaining it, but there was no evidence of the interaction between the variables such as would be predicted by the VIE multiplicative formula. Sheridan et al. (1975) successfully used the total VIE model to predict job choice among 49 nursing graduates but noted that due to a favorable job market, few nurses did not receive the offers they wanted. Lawler et al. (1975) found that the total VIE model was related to organizational choice among accounting graduates, but adding the expectancy term did not increase the researchers' ability to predict choice beyond predictions from the valence x instrumentality index alone.

Hypotheses

Because of the theoretical distinction between the two VIE

propositions about occupational preferences and occupational choices, both formulas were used in this study to differentiate the relative attractiveness ascribed by professors and department chairmen to each other's jobs and the inclinations of professors to change to the job of department chairman. The preferred occupation is identified as the one considered the most attractive, and the chosen occupation is the occupation toward which there is the strongest possible force (Vroom, 1964). Since there is no guarantee that a decision to attempt to enter a certain occupation will result in attainment of that occupation, due to circumstances outside the individual's control, it is suggested that actual job choice may not be the best criterion with which to test the total VIE model of occupational choice. Instead, the criterion applied here was to ask if professors would accept the job of chairman, assuming it were offered. Thus the following hypotheses were formulated:

Hypothesis 1. (Occupational attraction) Professors' anticipated satisfaction with the job of department chairman will be positively related to the sum of the products of the valences of relevant outcomes and the instrumentality of the job of department chairman for attaining those outcomes.

Hypothesis 2. (Occupational attraction) Department chairmen's past satisfaction with the job of professor will be positively related to the sum of the products of the valences of relevant outcomes and the instrumentality of the job of professor for attaining those outcomes.

Hypothesis 3. (Occupational choice) The intention of professors to accept the job of department chairman will be positively related to the expectancy of attaining the job of department chairman times the sum of the products of the valences of relevant outcomes and the instrumentality of the job of department chairman for attaining those outcomes.

Another factor which may result in the .ack of congruence between occupational preference and occupational choice is a perceived lack of ability (Vroom, 1964). As a variation on the total VIE model of occupational choice, then, it was predicted that expectancy of success would combine multiplicatively with the valence-instrumentality index of the attractiveness of an occupation to help determine occupational choice. Thus:

Hypothesis 4. (Occupational choice) The intention of professors to accept the job of department chairman will be positively related to expectancy of success on the job of department chairman times the sum of the products of the valences of relevant outcomes and the instrumentality of the job of department chairman for attaining those outcomes.

Logically related to preferring another occupation is the relative satisfaction one experiences in one's present job. A hypothesis similar to that for occupational preference is made by VIE theory for job satisfaction. Vroom (1964) noted that there are considerable data indicating the direct relationship between job satisfaction and the extent to which jobs are instrumental to the

attainment of outcomes assumed generally attractive to persons. Mitchell and Albright (1972) found that satisfaction with the job and with the Navy could be predicted for 51 naval aviation officers with a valence x instrumentality index. For this study, then, a further hypothesis was formulated:

Hypothesis 5. (Job satisfaction) The satisfaction of both professors and department chairmen with their present jobs will be positively related to the sum of the products of the valences of relevant outcomes and the instrumentality of their present jobs for attaining those outcomes.

A final hypothesis related to occupational choice was the prediction of the force on a person to remain in a job in which he is presently working; that is, to intend not to change jobs although another may be offered. According to VIE theory, the expectancy of the person that he will be able to remain on his present job should combine multiplicatively with the valence x instrumentality index of the attractiveness of the present job to determine intention to remain on the job (Vroom, 1964). The previously mentioned studies on job retention (Mitchell & Albright, 1972; Schneider, 1976) did not include an expectancy term in their VIE formulations. The expectancy of being able to remain on the job was operationalized here as expectancy of success on the present job.

Hypothesis 6. (Job stability) The intention of professors not to stay on their present jobs if the job of department chairman is offered will be negatively related to the expectancy of success on

the job of professor times the sum of the products of the valences of relevant outcomes and the instrumentality of the job of professor for attaining those outcomes.

The thrust of the six hypotheses in combination was an evaluation of the preferences, choices, and satisfactions of the incumbents of two related occupations. Those holding one of the jobs (department chairmen) had previously held the other job (professor) and could provide both insight into their own occupation and hindsight about their previous occupation. On the other hand, professors could provide insight about their own occupation and foresight about a prospective job of department chairman. These related perceptions were expected to provide interesting contrasts between expectations, remembrances, and realities.

Method

Two questionnaires were developed, one for professors and one for department chairmen. The questionnaires were identical except that the wording and presentation of questions acknowledged that the department chairmen had made a career change and were in a different occupational role from the professors. The main body of the questionnaires consisted of 49 outcome statements drawn from the professional literature as factors that might influence career preferences, choices, and satisfactions. The statements represented seven general categories: power, achievement, security, autonomy, social factors, family considerations and esteem. The items were phrased to repre-

sent both positive and negative outcomes and were presented in a random order to avoid a possible response bias.

The instructions on the questionnaires asked the participants to rate the statements three separate times, each time on five-point Likert scales. The outcome statements were rated for (a) valence, or "how desirable they are to you personally," scored +2 to -2, (b) instrumentality of the present job for attaining the outcomes, scored +4 to 0, and (c) instrumentality of the other job for attaining the outcomes, also scored +4 to 0 (professors rated chairman's job and chairmen rated professor's job). Inclusion of the zero point in scoring valence and instrumentality was a means of eliminating nonrelevant outcomes.

In addition to the three ratings of the outcome statements, questionnaire items also asked both groups for their expectancy of success on both jobs and their satisfaction with both jobs. Satisfaction on the other job was measured by having chairmen rate past satisfaction on the professor's job, while professors rated anticipated satisfaction on the chairman's job. Professors were also asked their expectancy of attaining a chairman's job. It was assumed that chairmen could re-attain a professor's job, so the question was not asked of this group. Similarly, professors were asked a question on behavioral intention; that is, would they accept a chairmanship if it were offered.

The questionnaires were sent to all male professors and department chairmen of a major university. Usable information was returned

anonymously from 268 professors (55%) and 45 department chairmen (45%).

Results

Hypothesis Tests

The results of the tests of the six hypotheses are shown in Table 1. The first two hypotheses attempted to predict for both professors and department chairmen occupational attraction to (expected satisfaction with) the others' job. Support for these hypotheses can be found in the first and second rows of Table 1. Anticipated satisfaction with the job of department chairman on the part of professors was predicted by the (V x I) index for the job of department chairman with $p<.001$. The same formula with instrumentality of the inappropriate job, that of professor, correlated with the same criterion to a much lesser degree (.23 compared to .53). This difference was significant at $p<.001$ according to a t-test between dependent correlations, which supported the usefulness of the theory for differentiating occupational preference.

Department chairmen's past satisfaction with the job of professor was predicted, as stated by Hypothesis 2, by the (V x I) index for the job of professor ($r = .43$, $p<.01$). Where instrumentality of the alternative job was used in the same formula, the correlation with past satisfaction with the professor's job was lower ($r = .31$), although the difference between the two correlations was not statistically significant for this sample.

Table 1

Correlations of VIE Components and Criteria

VIE Component	Professors (N = 268)			Chairmen (N = 45)	
	Present Satisfaction as Professor	Anticipated Satisfaction as Chairman	Intention to Choose Job of Chairman	Past Satisfaction as Professor	Present Satisfaction as Chairman
(VxI):Professor's Job	.42***	.23***	.13*	.43**	.19
(VxI):Chairman's Job	.08	.53***	.44***	.31*	.41*
$E_{success}$:Professor's Job	.30***	.15*	.05	.58***	.13
$E_{success}$:Chairman's Job	.07	.63***	.36***	.34*	.48***
E_{attain}:Chairman's Job	.18**	.35***	.21***		
$E_{success}$ x (VxI):Professor's Job	.43***	.24***	.11	.48***	.19
$E_{success}$ x (VxI):Chairman's Job	.11	.66***	.47***	.20	.45**
E_{attain} x (VxI):Chairman's Job	.18**	.53***	.40***		

*p<.05

**p<.01

***p<.001

Hypothesis 5, job satisfaction, concerned the prediction of satisfaction with present job for both professors and department chairmen. These results are also shown in the first two rows of Table 1. For professors, the appropriate (V x I) index correlated .42 ($p<.001$) with present satisfaction with the job of professor, while the inappropriate (V x I) index, that for the chairman's job, did not correlate significantly with the same criterion. Among department chairmen, the correlation of the appropriate (V x I) index with satisfaction with the chairman's job was statistically significant ($r = .41$, $p<.01$), and the absolute magnitude of this correlation was much higher than that of present satisfaction and the (V x I) index for the other job ($r = .19$, ns). For both samples the difference between the two correlations was significant ($p<.01$ for chairmen, $p<.001$ for professors), which supported the usefulness of the theory for differentiating satisfaction with one's present job.

In summary, the hypotheses about occupational attraction and job satisfaction were supported in that the appropriate VIE theory components predicted anticipated, past, and present satisfactions. Moreover, the (V x I) index from the instrumentality of the job under consideration showed its superiority to the (V x I) index for the instrumentality of another job in making these predictions in three out of four comparisons.

Although the VIE theory predictions were supported in terms of predicting satisfaction with two different jobs, the components of

theory selected for each type of prediction were not necessarily superior to other components of the theory measured here. Professors' anticipated satisfaction with the job of department chairman was as well or better predicted by expectancy of success on the chairman's job and by the two complete VIE models as by the (V x ( ) index. Similarly chairmens' past satisfaction with the job of professor was as well or better predicted by their expectancy of success on the professor's job and by the total VIE model using expectancy of success on the professor's job as by the (V x I) index. Prediction of present satisfaction was also as accurate from the expectancy of success term (for chairmen only) or the total VIE model using expectancy of success on the present job (for both samples). Thus the VIE components could for the most part identify preferences and satisfactions with one job in contrast to another, but the components were not differentiated from each other as specified by the theory.

Hypotheses 3, 4, and 6, regarding occupational choice and job stability, were tested with professors only. Since these hypotheses concerned the behavioral intention to change from one job to another, it was assumed that the chairmen had already made this change. Support for Hypotheses 3 and 4 can be found in the third column of Table 1. The intention to accept the job of department chairman was predicted by the complete VIE models using either attainment as the expectancy term, supporting Hypothesis 3 ($r = .40$, $p < .001$) or success as the expectancy term, supporting Hypothesis 4 ($r = .47$,

$p<.001$). The latter correlation was significantly higher than the former ($t = 2.22$, $p<.05$), indicating that expectancy of success was a better multiplier in the total VIE model than was the more traditional expectancy of attainment.

The specified components of the VIE model did not predict occupational choice any better than other components of the model, however, as found with the predictions of occupational attraction and job satisfaction. In particular, the (V x I) term correlated as highly with intention to choose the chairman's job as did the best total VIE model. Both expectancy terms also correlated significantly with intention to change jobs, although expectancy of success had a significantly higher correlation than did expectancy of attainment ($p<.01$).

Neither the total VIE model nor other VIE components predicted propensity not to choose the chairman's job, or job stability, when expectancy of success and instrumentality were measured for the professor's job. Hence Hypothesis 6 was not supported. This is in contrast to the results of Schneider (1976), who found that a (V x I) index for a civilian job correlated negatively with intention to make the Navy one's career.

Mitchell (1974) has pointed out that Vroom's theory was originally designed to make within individual and not between individual predictions. Since this study compared the reactions to two alternative jobs, the responses of the subjects were scored ipsatively as well as normatively. That is, the (V x I) index for each job

was compared for each person, and the magnitude of the difference was recorded to reflect the extent of preference for the present or other job. In addition, the simple direction of preference was recorded so that one individual's strong reaction could not overwhelm several individuals' milder reactions. These magnitude and direction of preference scores were then correlated with the occupational attraction and job satisfaction criteria. Results showed no advantage of this method of scoring over the normative method in terms of the size of the correlation. A similar procedure was used for an ipsative comparisons of the complete VIE models using the two expectancy terms. Correlations with propensity to choose the chairman's job using this ipsative method were either the same or lower than correlations using the normative method, again demonstrating no improvement in strength of prediction from this additional refinement. Although Schneider (1976) was better able to predict career intent between two alternatives using an ipsative method of scoring a (V x I) index, when adjustments were made for the initial level of one of the alternatives, the two scoring methods produced correlations with the criterion of about the same magnitude. Still, he concluded that consideration of an alternative influenced career attractiveness.

One possible explanation for the greater strength of Schneider's findings compared to those here, both with respect to predicting job stability and ipsative predictions of career intent, may be related to the polarity of the alternatives. A Navy vs. a civilian

job, as studied by Schneider, appears to be a much more clearly differentiated occupational choice than professor vs. department chairman, as studied here. In fact, department chairmen often perform many of the duties of professors as well as those of an administrator, and no change in employing organization is necessarily implied in a change from one job to the other.

Mean Differences

The mean scores of ratings by the professors and department chairmen on both jobs are presented in Table 2. Since there were only two treatment groups, t-tests for the significance of difference between correlated means were calculated, as recommended by Guilford and Fruchter (1973, p. 270), rather than a repeated-measures analysis of variance. The t-tests in the right-hand column show the differences in ratings between the two independent samples. As can be seen, the opinions of professors and department chairmen were not significantly different concerning the job each had actually performed, that of professor, with respect to their average expectancy of success on the job, the attractiveness of the job $\Sigma(V \times I)$, the force on them to remain in the job $[E_{success} \times \Sigma(V \times I)]$, or satisfaction with the job. The opinions of the two samples with respect to the department chairman's job were significantly different from each other on all of these same variables, however. The department chairmen rated their own job significantly higher than did the professors.

Table 2

Means and Standard Deviations of Variables Relevant to Both Present and Other Job

Ratings of Professor's Job

Variable	Professors $\bar{X}_1$	S_1	Chairmen $\bar{X}_2$	S_2	Difference $\bar{X}_1-\bar{X}_2$	t^a	p
$E_{success}$	3.22	.72	3.16	.90	+ .06	.50	ns
$\Sigma(V\times I)$	95.15	38.54	99.49	35.22	-4.34	.71	ns
$E_{success} \times \Sigma(V\times I)$	316.06	168.59	317.13	156.40	-1.07	.04	ns
Satisfaction	3.99	.84	4.07	.60	- .08	.62	ns

Ratings of Chairmen's Job

Variable	Professors $\bar{X}_3$	S_3	Chairmen $\bar{X}_4$	S_4	Difference $\bar{X}_3-\bar{X}_4$	t^a	p
$E_{success}$	2.11	1.67	3.09	.85	- .98	3.92	.001
$\Sigma(V\times I)$	74.96	44.70	99.64	38.19	-24.68	3.52	.001
$E_{success} \times \Sigma(V\times I)$	181.19	167.15	321.51	176.49	-140.32	5.20	.001
Satisfaction	2.48	1.15	3.84	.77	-1.36	7.56	.001

Difference Between Ratings of Both Jobs

Variable	$\bar{X}_1-\bar{X}_3$	t^b	p	$\bar{X}_3-\bar{X}_4$	t^b	p
$E_{success}$	+ 1.11	9.25	.001	+ .07	.30	ns
$\Sigma(V\times I)$	+20.19	4.28	.001	- .15	.01	ns
$E_{success} \times \Sigma(V\times I)$	+134.87	7.33	.001	-4.38	.09	ns
Satisfaction	+ 1.51	16.78	.001	+ .23	1.44	ns

Note: N = 268 Professors, 45 Chairmen

[a] t-test between means for independent samples

[b] t-test between means for correlated samples

The t-tests in the last four rows of Table 2 indicate that the relatively higher ratings of the department chairman's job by its incumbents were the result of low ratings of that job by the professors. The department chairmen did not differentiate between the two jobs in terms of satisfaction, attractiveness, expectancy of success on the job or force to remain in the job. But on the average the professors perceived that the chairman's job would offer them a lower expectancy of success, be less likely to lead to desired outcomes, generate less force toward meovement into the job, and bring them less satisfaction in comparison to their own job of professor.

Put another way, the findings in Table 2 illustrate an interaction between the job being rated and the job held by the rater. For all terms listed, the interaction arose because professors, on the average, had less favorable attitudes toward the job of chairman. This pehnomenon is illustrated in Figure 1, which shows the average ratings of expectancy of success by each sample for each job. Diagrams of the remaining variables in Table 2 are not shown but would have a similar form.

When the data were broken down further to compare the professors who said they would accept the chairman's job with the professors who said they would not accept the chairman's job, the findings of Table 2 were found to pertain primarily to the professors who would reject a chairmanship. Among professors who would accept the chairman's job, there was no differentiation between ratings of the two

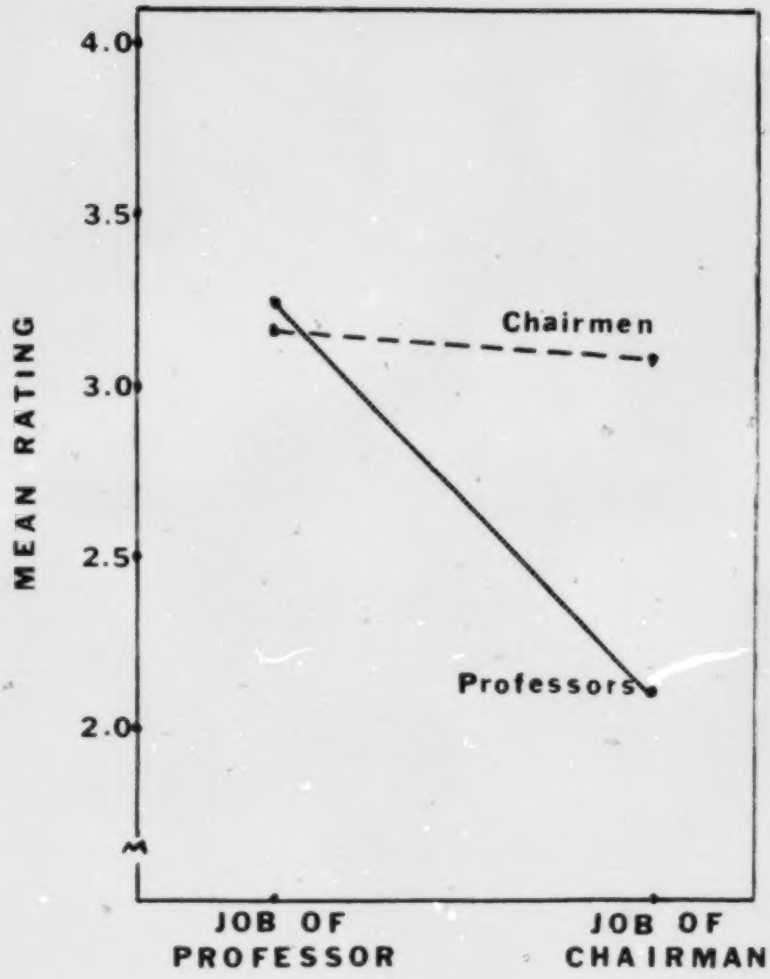

Fig. 1. Mean ratings of expectancy of success in each job.

jobs on any of the variables in Table 2 except expectancy of success. Here even the professors who would accept the chairman's job evaluated their expectancy of success on the professor's job as significantly higher than their expectancy of success on the chairman's job ($t = 2.64$, $p < .01$). Moreover, when professors who would accept the chairman's job were compared to incumbent chairmen on the four variables in Table 2, the change-oriented professors had mean scores significantly different from chairmen only on expectancy of success on the chairman's job, where it was significantly lower ($t = 2.35$, $p < .05$). These results on expectancy of success might be anticipated, since the professors had experienced their own jobs and presumably had experienced some success on them. Their success on the job of chairman was still unknown to them, and they might consequently lack confidence about their ability to perform it well.

The professors who indicated they would accept the chairman's job were definitely in the minority--of the 244 professors responding to the question, 66 (27%) said they would accept a chairmanship and 178 (73%) said they would decline. The professors who would accept the job were younger (r_{pb} of age and intent to accept = -.16, $p < .01$) but did not have significantly more or less tenure at this particular university (r_{pb} of tenure and intent to accept = -.07, ns). The findings on age are consistent with previous findings on propensity to leave one job for another among middle-aged men (Parnes & Nestel, 1975). But the same authors found that tenure was inversely related to propensity to make a job change, and

explained this as a result of the job security and fringe benefits that typically accrue with experience in an organization. In this study, the decision to take another job did not necessarily involve leaving the organization. Moreover, job security would be guaranteed by the tenure system at universities.

Parnes and Nestel (1975) also found that job satisfaction was inversely related to propensity for mid-career change. This finding was replicated and expanded in this study. Intention to accept the chairman's job was negatively correlated with satisfaction with the present job of professor ($r = -.21$, $p < .001$) and positively correlated with anticipated satisfaction in the job of chairman ($r = .61$, $p < .001$). This may be a reflection of the frequently found inverse relationship between job satisfaction and turnover (Vroom, 1964).

Subscale Results

The 49 items on the questionnaire were selected a priori to represent 7 subscales of 5 to 10 items each. An analysis of the subscales was undertaken to provide some additional information about the underlying dynamics in a preference for each of the two jobs. Specifically, which types of outcomes are more desirable to professors vs. chairmen? And which type of job is considered to lead to which types of outcomes? Some representative items in each of the subscales are listed below.

1. Power - "directing other people's activities;" "Assuming responsibility for the work of others"

2. Achievement - "Challenging work;" "Making meaningful use of my skills and abilities"

3. Security - "Earning enough to meet my financial needs;" "Working under stress" (scored negatively)

4. Autonomy - "Finding solutions to problems independently;" "Freedom from organizational constraints (such as committee meetings, time schedules, specified hours of work)"

5. Social - "Support from my peer group against criticism and attack;" "Congenial interpersonal relations with co-workers"

6. Family - "Spending time regularly with my family;" "Satisfaction of my spouse with my job"

7. Esteem - "Esteem from those in lower-level positions;" "Prestige among friends and neighbors"

The meaning of the subscale results is best understood by integrating the findings in Tables 3, 4, 5, and 6. Table 3 shows the mean valence of outcomes by subscale for each sample, Table 4 shows internal consistency reliability estimates by subscale for valence and instrumentality, Table 5 shows the correlations of subscale valences and the various criteria, and Table 6 shows the mean instrumentality of each job for outcomes by subscale. Because of the large sample size of the professors, within group comparisons of instrumentality ratings of each job shown in Table 6 were all statistically significant, even when the more conservative t-tests for independent samples were calculated rather than t-tests for correlated samples. The practical significance of the findings in

Table 3

Means and Standard Deviations for Valence of Outcomes By Subscale

	Valence Ratings						
	Professors		Chairmen		Difference		
Subscale	$\bar{X}_1$	S_1	$\bar{X}_2$	S_2	$\bar{X}_1-\bar{X}_2$	t	p
Power	.42	.49	.76	.44	-.34	4.25	.001
Achievement	1.30	.35	1.31	.31	-.01	.05	ns
Security	1.26	.34	1.15	.29	+.11	2.20	.05
Autonomy	.98	.48	.77	.41	+.21	2.80	.01
Social	.77	.40	.74	.35	+.03	.48	ns
Family	.95	.47	.93	.41	+.02	.29	ns
Esteem	.81	.42	.93	.42	-.12	1.79	ns

Note: N = 268 Professors, 45 Chairmen

Table 4

Spearman-Brown Internal Consistency Reliability

Estimates of Subscales

		Chairmen			Professors		
	No. Items	V	I_c	I_p	V	I_c	I_p
Power	9	.74	.81	.95	.75	.77	.81
Achievement	10	.62	.78	.74	.71	.76	.81
Security	8	.59	.54	.59	.25	.60	.72
Autonomy	6	.37	.40	.20	.67	.65	.71
Social	6	.51	.37	.45	.58	.63	.57
Family	5	.65	.68	.65	.63	.58	.63
Esteem	5	.76	.70	.75	.70	.76	.72
	49						

Note: V = Valence, I_c = Instrumentality of Chairman's Job, I_p = Instrumentality of Professor's Job

Table 5

Correlations of Subscale Valences and Criteria

	Professors (N = 268)			Chairmen (n = 45)	
Subscale Valence	Present Satisfaction as Professor	Anticipated Satisfaction as Chairman	Intention to Choose Job of Chairman	Past Satisfaction as Professor	Present Satisfaction as Chairman
Power	.20**	.45****	.39****	.16	.44**
Achievement	.22****	.28****	.17**	.27	.25
Security	.06	.02	.02	.13	.03
Autonomy	.12*	-.12*	-.14*	-.04	-.08
Social	-.12*	-.14*	-.03	.03	-.08
Family	.06	.07	.11	.21	-.04
Esteem	.08	.11	.04	.28	.15

* $p < .05$

** $p < .01$

**** $p < .001$

Table 6

Means and Standard Deviations of Instrumentality of Each Job for Outcomes by Subscale

Ratings of Professor's Job

	Professors		Chairmen		Differences	
Subscale	$\bar{X}_1$	S_1	$\bar{X}_2$	S_2	$\bar{X}_1-\bar{X}_2$	$\bar{X}_1-\bar{X}_3$
Power	1.88	.56	1.69	.53	+.28	-1.05****
Achievement	2.61	.47	2.63	.38	-.02	+ .31****
Security	2.16	.52	2.38	.36	-.22**	+ .10*
Autonomy	2.40	.54	2.48	.39	-.08	+1.26****
Social	2.28	.54	2.38	.38	-.10	+ .37****
Family	2.25	.60	2.22	.64	+.03	- .12*
Esteem	2.17	.57	2.29	.52	-.12	- .36****

Ratings of Chairman's Job

	Professors		Chairmen		Differences	
Subscale	$\bar{X}_3$	S_3	$\bar{X}_4$	S_4	$\bar{X}_3-\bar{X}_4$	$\bar{X}_2-\bar{X}_4$
Power	2.93	.45	2.55	.47	+.38****	- .95****
Achievement	2.30	.50	2.50	.41	-.20**	+ .13
Security	2.06	.44	2.05	.39	+.01	+ .33****
Autonomy	1.14	.49	1.86	.39	-.72****	+ .62****
Social	1.91	.50	2.50	.36	-.59****	- .12
Family	2.37	.57	2.13	.67	+.24**	+ .09
Esteem	2.53	.56	2.33	.43	+.20*	- .04

Note: N = 268 Professors, 45 Chairmen

*p<.05

**p<.01

****p<.001

Table 6 are best revealed, then, by Figures 2 through 8.

As shown in Table 3, both professors and chairmen were most characterized by desires for achievement, but this subscale did not differentiate the two groups. The most meaningful difference in valence or outcome desirability by subscale for the two samples was the greater preference for power by the chairmen, in spite of the fact that this subscale had the next to lowest valence rating by chairmen overall. It should be noted that the power subscale included administrative power, since it contained items such as "Planning, budgeting, forecasting", and "Policy making."

Table 5 shows that the only subscale valence positively correlated with present job satisfaction for chairmen was that for power ($r = .44$, $p < .01$), indicating that those chairmen who most valued power were the most satisfied with their jobs. Among professors, the valence of power was significantly correlated with anticipated satisfaction as a chairman ($r = .45$, $p < .001$), behavioral intention to accept the job of chairman ($r = .39$, $p < .001$), and present satisfaction with the job of professor ($r = .20$, $p < .01$). The latter finding, significantly positive though lower in magnitude than the correlations relating to the chairman's job, probably reflects the fact that the job of professors is not without its aspects of power also, given their position relative to students.

The administrative job was seen as providing the greatest power, however, as shown in Table 6 and Figure 2. Average scores on subscale instrumentality indicated that both professors and

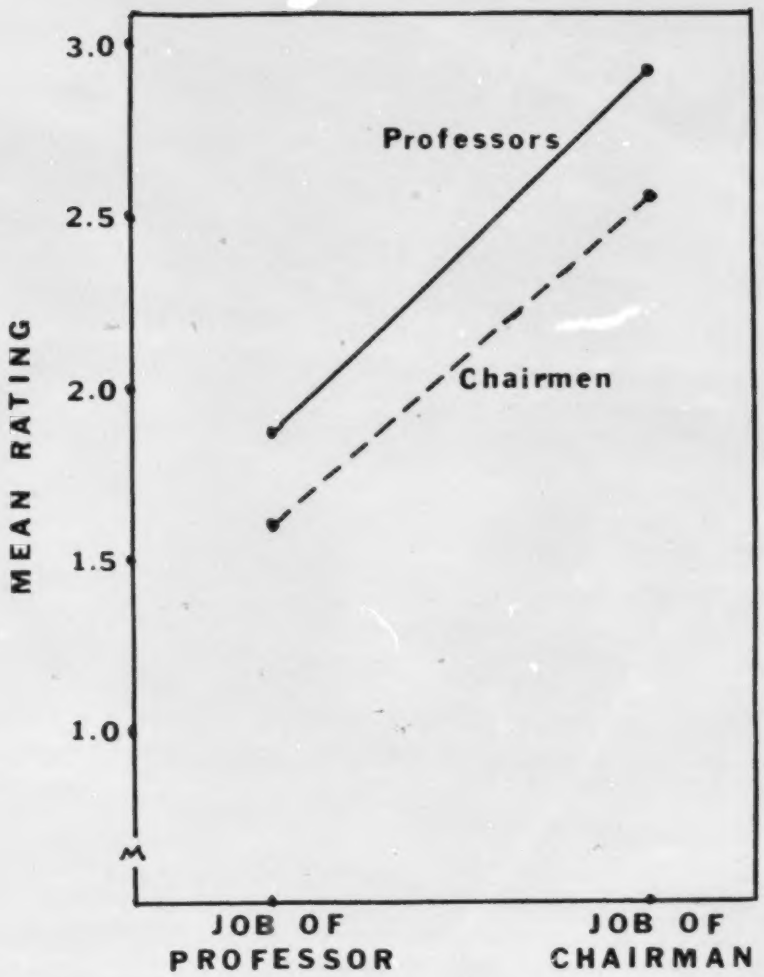

Fig. 2. Mean ratings of instrumentality of each job for power.

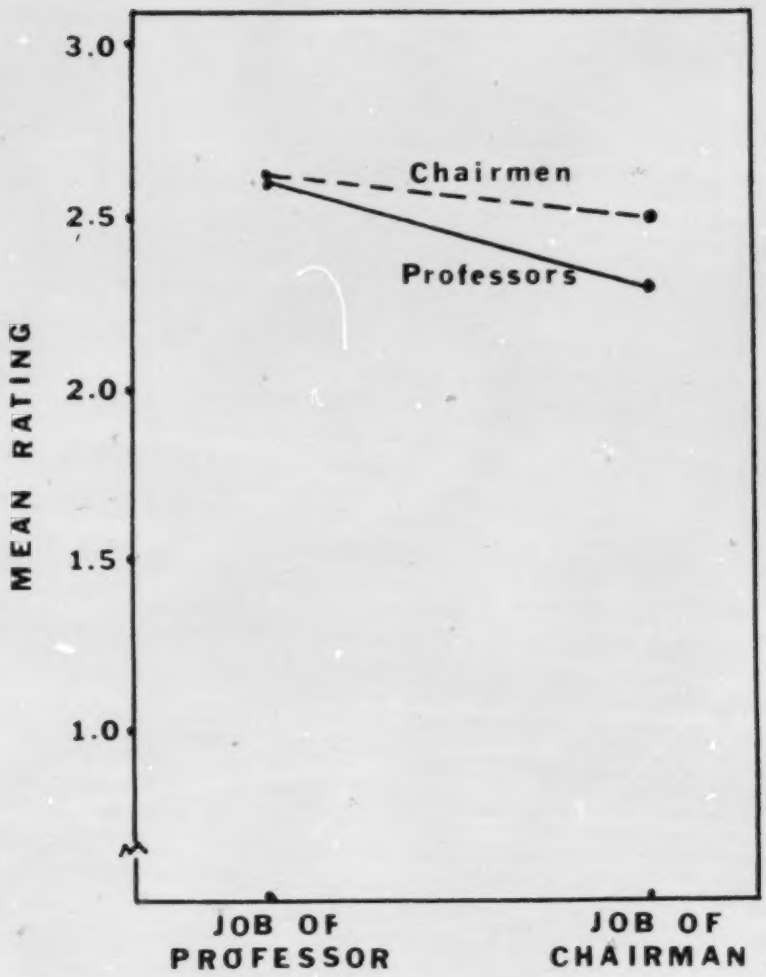

Fig. 3. Mean ratings of instrumentality of each job for achievement.

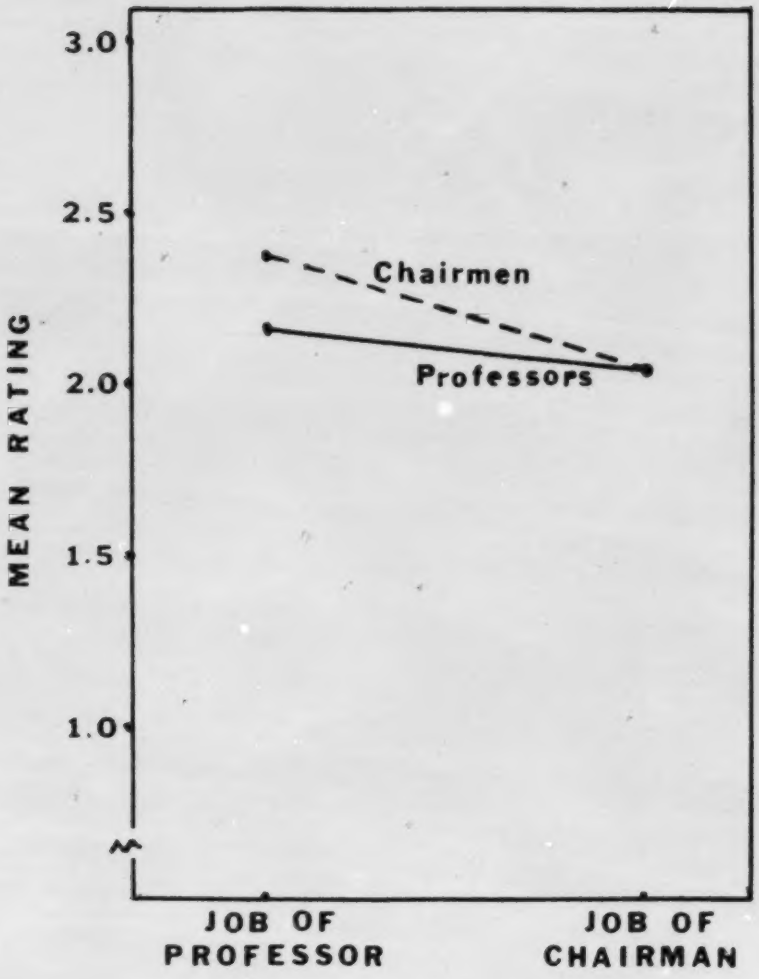

Fig. 4. Mean ratings of instrumentality of each job for security.

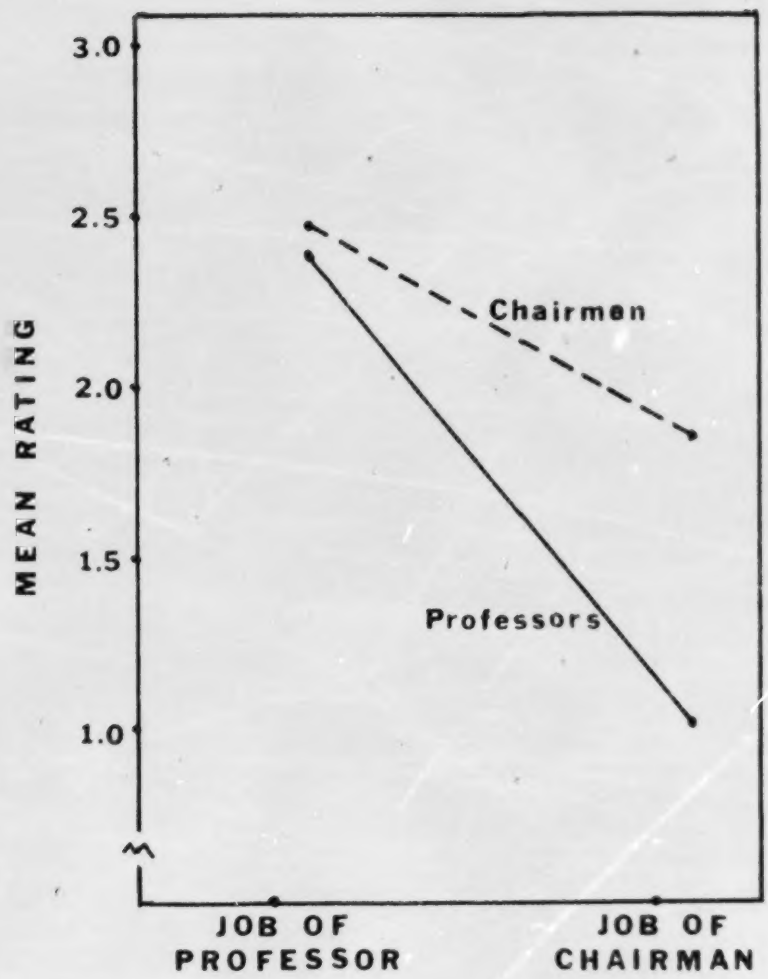

Fig. 5. Mean ratings of instrumentality of each job for autonomy.

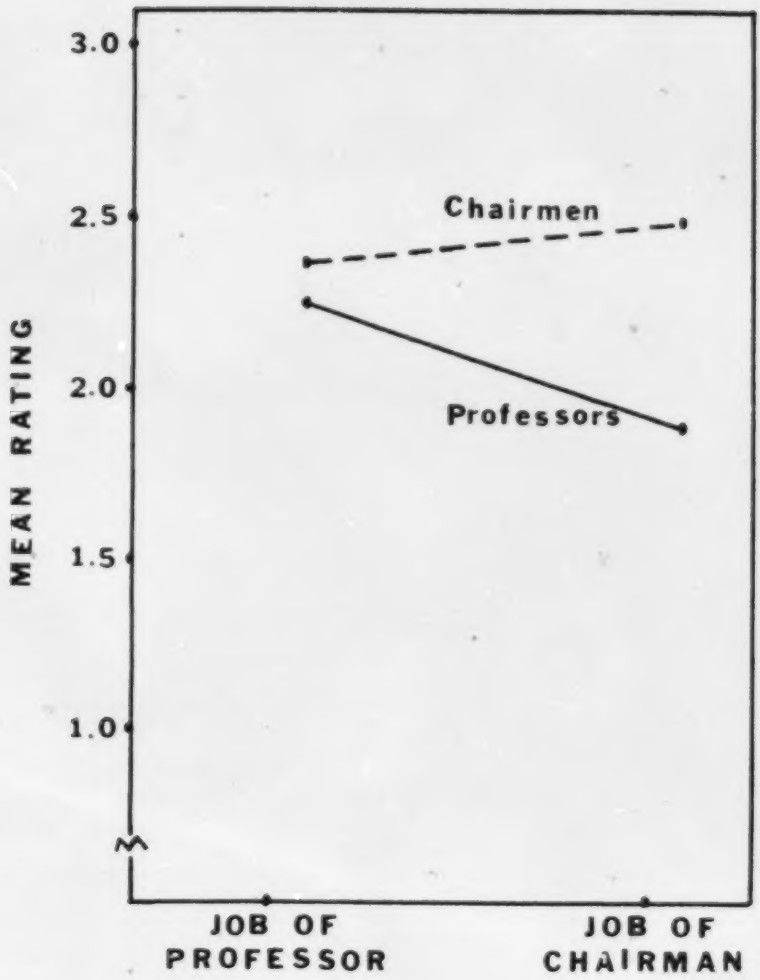

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Fig. 6. Mean ratings of instrumentality of each job for social factors.

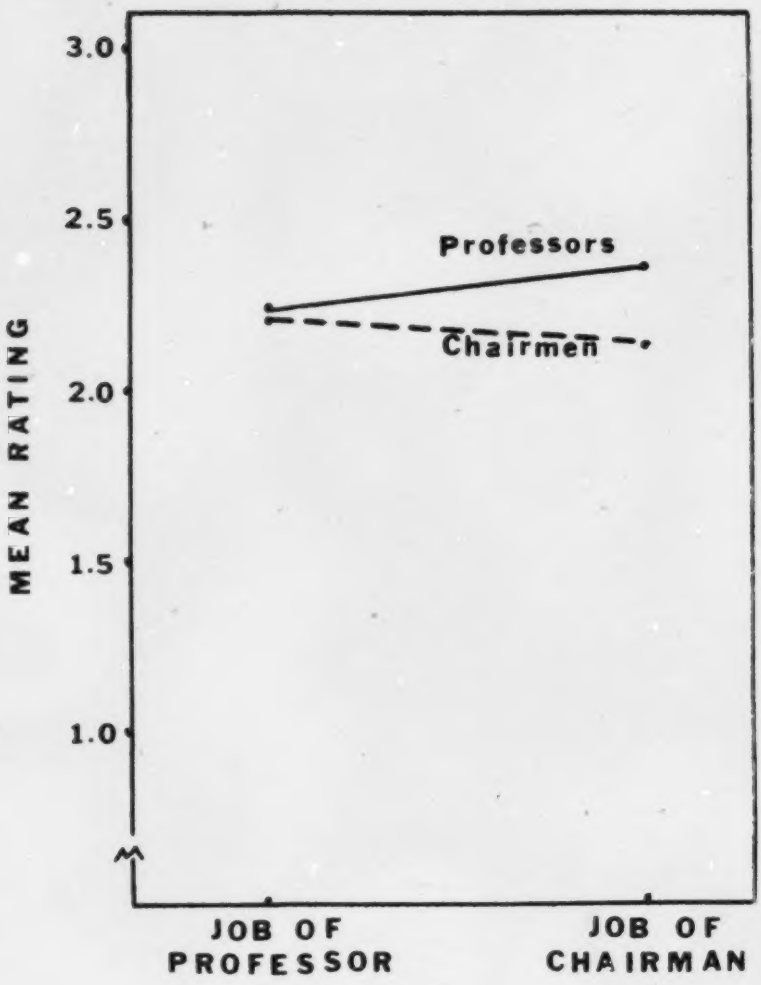

Fig. 7. Mean ratings of instrumentality of each job for family considerations.

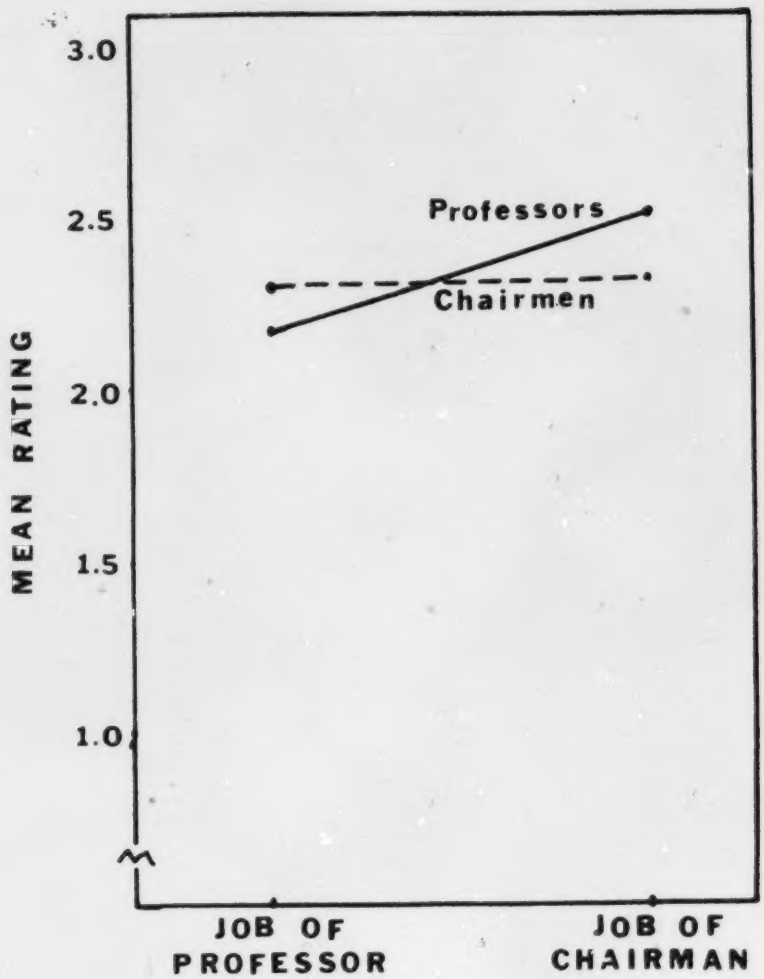

Fig. 8. Mean ratings of instrumentality of each job for esteem.

chairmen saw the job of chairman as leading to significantly greater power than the job of professor ($p<.001$ in both cases). When all the data are taken together, it appears that power is likely to be a meaningful consideration in the decision to become a department chairman.

The next most meaningful finding in Table 3 was that professors indicated that they valued autonomy more than did chairmen ($t = 2.80$, $p<.01$). The instrumentality mean scores for both professors and chairmen also indicated that the job of professor was more likely to lead to autonomy than was the job of chairman, but the professors saw this tendency more strongly than did the chairmen (see Table 6 and Figure 5). The correlational results for professors (Table 5) supported these findings in that the valence of autonomy was negatively correlated with intention to accept the chairman's job ($r = -.14$, $p<.05$), negatively correlated with anticipated satisfaction on the job of chairman ($r = -.12$, $p<.05$), and positively correlated with present job satisfaction as professor ($r = .12$, $p<.05$).

Table 3 also shows that professors considered security more desirable than did chairmen on the average, although it was valued highly by both groups. Again, instrumentality mean scores for both samples indicated that the job of professor was more likely to lead to security than was the job of chairman, but here the chairmen made a greater distinction than did the professors (see Table 6 and Figure 4). The correlational results in Table 5 did not suggest that those who valued security more highly were more likely to

prefer the job of professor over chairman, however.

The findings for the security subscale are not strong, then, and the results for the remaining four subscales do not clearly differentiate preferences for the two jobs. In summary, the most meaningful findings from the subscale analyses were that power is an important factor in the preference for a chairman's job, while autonomy is an important factor in the preference for the professor's job.

Discussion

Although the results of this study supported the use of the VIE framework for exploring occupational preferences, satisfactions and choices, the various VIE components did not behave in the specific manner prescribed by the theory. This was previously shown in the study by Lawler et al. (1975), who found that the (V x I) index was a better predictor of jobs applied for than the total VIE model. Similar findings of inappropriate VIE components predicting criteria the same or better than the appropriate models have often been reported for studies of production or task behavior, where the theory is most frequently applied (Campbell & Pritchard, 1976).

An interesting finding here related to intention to choose the chairman's job was that expectancy of success on the job was a stronger predictor, both alone and in the total VIE model, than expectancy of attainment of the job, the term specified by the theory. Defining expectancy in terms of success is not inconsistent

with the logic of the theory, since this also represents a reality factor that could come between occupational preference and occupational choice. Expectancy of success may prove to be a better predictor of job choice in future studies than expectancy of attainment and appears to be worth exploring further.

Another interpretation, however, is that expectancy of success might be considered an instrumentality term rather than an expectancy term. That is, it could be conceptualized as the subjective probability that a given job will lead to the global outcome called success. In this case, its failure to increase the prediction of intention to change jobs over the prediction by the (V x I) index is less surprising.

The failure of the specified expectancy term, that of attainment, to increase the prediction of intention to choose the chairman's job over the prediction by the (V x I) index may be the result of a flaw in the wording of the criterion. Behavioral intention was measured by asking if a chairmanship would be accepted if it were offered. Technically, the criterion assumes that expectancy of attainment is 100%, and the E term becomes redundant in the model.

The analysis of the findings here by subscale added a dimension that has too long been ignored in research with VIE theory on occupational preference and choice. Although some researchers have tried to categorize outcomes as intrinsic vs. extrinsic (Mitchell & Albright, 1972; Mitchell & Knudsen, 1973), results have been

mixed. Analyzing outcomes further by subscales or needs might increase our understanding of the evaluative components of the processes underlying career decisions and help bridge the gap between VIE studies of occupational choice and the trait theories of vocational psychology.

The perceptions of the two jobs by the two samples diverge from several other findings of perceptions of occupations before, immediately after, and considerably after attainment of the job. Schneider (1976) reported what he called the "greener grass" phenomenon among his subjects--those who saw a civilian job as more attractive than their present careers in the Navy outnumbered those who saw the Navy as more attractive by about 3 to 1. In this study, the opposite was the case. Those professors who said they would leave the job of professor for the job of department chairman were outnumbered by those who would not leave by about 4 to 1. As with the other Schneider findings that were at variance with those here, type of sample may be largely responsible. Professors as a group were not very interested in changing to an administrative role. Perhaps this disinterest demonstrates that our initial assumption was correct--a highly trained professional contemplating movement into the management hierarchy is not necessarily considering a promotion or progress but a mid-career change.

After choosing a new career, individuals' evaluations of their new occupations or organizations have been shown to improve, while the attractiveness of competitors goes down, presumably to reduce

cognitive dissonance (Festinger, 1957) created by the choice. Vroom (1966) found such a change among 37 master's students, but later discovered that organizational attractiveness decreased significantly after 1 year of employment and stayed down 3 1/2 years after employment (Vroom & Deci, 1971). Others have also found organizational attractiveness high at first but declining later. Lawler et al. (1975) found that a (V x I) index for the attractiveness of firms rated by accounting students decreased from pre-application to post-job choice ($p<.01$) and significantly more one year later ($p<.01$). Bray, Campbell, and Grant (1974) found that new college recruits had unrealistically positive expectations about their careers and their organizations, and these expectations declined rather steadily over seven years of experience. Wanous (1976) also suggested that the declining attractiveness of organizations may be due to initial unrealistic expectations and cited six experiments showing that job survival is greater for those who receive a realistic job preview. It is suggested here that the professors in this sample might have had a realistic preview of the job of department chairman, since they have undoubtedly been close to it. This would explain why the attractiveness of the job was no higher for those who would take the job than for the incumbent chairmen.

Although a comparison of the foresight and hindsight of incumbents in two related occupations adds significantly to our understanding of the perceptions of the jobs over time, it is still not clear from such a correlational study whether the VIE perceptions

caused the occupational preferences, the occupational preferences or choices caused the VIE perceptions, or both caused each other. A study, preferably including subscale analyses, administered both before and after an occupational change such as from professor to department chairman, could help unravel the process further. Unfortunately, the anonymous collection of data in the present study precluded such a follow-up.

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